



Safety Management System

Safety Bulletin

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Managing Risks of Ageing Pilots

This Safety Bulletin discusses risks associated with ageing, affecting fitness to fly and perform safety-critical tasks in maintenance and gliding support. Options for extending personal safety and fitness via the IMSAFE check to longer term assessments, and collective safety strategies such as “WE ARE SAFE” are discussed. The value of expert medical advice and assessment is explored.

Note: Whilst this bulletin discusses risks and medical issues concerning ageing which can be compounded by underlying health conditions, this should not be interpreted as health advice; rather it is general safety management advice that must be supported by professional advice from members’ medical practitioners. Existing glider pilot medical standards are recognised.

EXAMPLES OF RISK SCENARIOS

Consider these scenarios and their potential application to your members and clubs.

Ageing Pilot A – Healthy Ageing Pilot – An active, experienced, skilful pilot has enjoyed years of club gliding activity, with no major episodes of illness or disease. Their normal medical clearances have been provided by a GP with no major concerns, other than the gradual effects of having had “too many birthdays”. They see optical and hearing specialists regularly. The pilot is gradually slowing down, has less strength and stamina, takes appropriate rests, flies and works within sensible self-imposed limits.

Ageing Pilot B – Ageing Pilot Recovering from Underlying Condition – An active, experienced, skilful pilot has enjoyed years of club gliding activity, mostly in good health, but was recently diagnosed with an underlying condition requiring surgery or medical treatment. GP and Specialist advice confirms they are now fit to AUSROADS medical standards. The pilot returns in seeming good health, checks and flies safely. The pilot shows signs of degradation, weakness, reduced stamina, and must fly and work with more cautious self-imposed limits.

Ageing Long Covid Symptomatic Pilot C – An active, experienced, skilful pilot has enjoyed years of gliding activity, with no major episodes of illness until a recent Covid infection. The pilot shows signs of accelerated degeneration, weakness, low stamina, bouts of fatigue and loss of mental focus. Error rates and attention lapses, even with familiar simple tasks, are noticeably higher. Members notice uncharacteristic errors and small mishaps. The pilot’s level of frustration is higher, with tighter limits on what they can do safely.

AGE-RELATED HEALTH DEGRADATION

Ageing! We cannot prevent it, most try to enjoy life as much as possible, and gradually suffer symptoms of advancing years. Risks of serious conditions inevitably increase. Most pilots pay attention to lifestyle factors affecting their ability to fly. With age, many move from medical self-declarations to GP certification to AUSROADS standards. Many routinely see optometrists and hearing specialists, noting the primacy of sensory acuity in flying safety.

In the absence of disqualifying medical conditions¹, most face gradual degradation in strength, stamina, tolerance to weather extremes, creakier joints, sore muscles, skin conditions, slower reflexes and thinking, possible memory lapses, reduced concentration and situational awareness. Greater caution is needed in flying, maintenance and on-aerodrome tasks. Cross country soaring and flight in demanding conditions is more challenging. IMSAFE takes on greater significance, each flying day, plus in a long-term context. Similarly, the observations and advice of our gliding colleagues must be listened to, in the constructive spirit intended.

COMPOUNDING RISKS - POSSIBLE SYMPTOMS OF LONG COVID

From an aviation safety perspective, more concerning Long-Covid impacts include fatigue, brain fog, depression, sleep disruptions, cardiovascular impacts and susceptibility to other conditions. See SB 07/22 Managing Risks of Long Covid in Gliding Activities.

UK-based studies with a large group of previously uninfected people, comparing post-Covid with uninfected patients across wide age ranges, are providing reliable data on thinking and mental impacts and changes visible in CT scans. These studies show worrying trends *particularly among older patients* indicating physical brain changes, clotting, slower thinking and higher error rates.

Whilst Long-Covid has many types of impacts, across all age groups, there is growing evidence that older patients are most severely affected, compounding the effects of age-related degeneration, as well as underlying conditions.

SELF-ASSESSMENT AND THE IMSAFE CHECKLIST

What is IMSAFE? It is a personal fitness to fly checklist, adopted by CASA and Gliding Australia, part of our gliding training system. GPC [Unit 24](#) Human Factors and Limitations and [Unit 25](#) Threat and Error Management apply. It applies to *all aviation safety-critical activities*, flying, airworthiness, on-aerodrome support, training, supervision.

I – ILLNESS
M – MEDICATION
S – STRESS
A – ALCOHOL and other DRUGS
F – FATIGUE
E – EATING and nutrition levels.

IMSAFE relies upon *objective self-assessment and pilot honesty* about their safe limits on a given day. For any pilot suffering any negative changes, ILLNESS, MEDICATION and FATIGUE aspects are most important; in practice, we normally limit the amount of stress we put ourselves under.

That assumes all goes well; we may unintentionally find ourselves far from home, or in more stressful conditions than planned, for longer. Maintenance tasks may be more difficult and strenuous than anticipated, in more demanding environments. Murphy's Law might bite!

¹ Reference [Operational Regulations](#) 3.2.2, [MOSP Part 2 Operations](#) - Appendix 1 Medical Self-Declaration, Appendix 2 GP Medical Declaration, and Section 10.1 Medical Requirements.

Unfortunately, when fatigued, low on nutrition, when concentration and focus is hard to maintain, *we are probably less able to comprehend and react appropriately* to our own degraded state.

Many pilots say, “gliding keeps me young!” Gliding activity helps our fitness, mental wellbeing and social networking. Reducing participation in gliding is therefore an unwelcome lifestyle impact. We wish to preserve the things we value most, hence we may have confirmation (optimism) bias in our self-assessments. Unfortunately, this may also cause us to be less willing to listen to concerns or advice from others.

EXPERT PROFESSIONAL ADVICE

Understanding our real limits and risk factors is therefore crucial. The golden rule is this: If we are in any doubt about our symptoms, level of degradation, compounding effects, then *we must seek expert professional advice from medical practitioners, GPs or Specialists*. That advice should be considered in our longer-term IMSAFE assessment.

This should apply regardless of the type of medical clearance we use - self-declaration, or through GP certification to AUSROADS standards, or CASA medical.

For example, Pilot B above, recovered from a medical condition, might be fit to fly, with advice to avoid activity in hot conditions over 38C. Pilot C above, with Long Covid symptoms, may be advised to fly dual only for a three-month period. Also listen to cautionary advice from club members.

COLLECTIVE SAFETY – BEYOND IMSAFE TO WE ARE SAFE

First, we must acknowledge that *we all make mistakes and omissions*, even on days when we feel energised and sharp. Humans appear to have a huge capacity to commit errors and do weird things, so we should not necessarily treat individual (minor) errors as serious problems. Serious safety errors, yes, stop and deal with them! Repeated error patterns, yes, could be problematic.

Secondly, *we should listen to our “inner voice” of self-doubt as well as a “friendly voice” from our peers and gliding colleagues*. Many are able to sense when something is not quite right with a friend or colleague, to detect changing behaviour or ability to deal with problems. In strong teams and healthy cultures, we recognise our collective obligations to look after mates’ wellbeing, each other.

This means that *we should be able to talk to gliding friends about any observed concerns*, any reduced ability or capacity to solve problems and manage workload. We should be able to *extend IMSAFE to ARE WE SAFE?* This is not an acronym but a state of mind, a willingness to suggest safe limits on what individuals and teams can do. This also implies *willingness to accept advice from others* that things may not be quite right today. Everyone has off days!

Thirdly, all members are trained that “any person can stop a launch”. Anyone! Who can stop a glider taking off in an un-airworthy condition? Who can stop a pilot from taking off when they are not fit to fly? It should be the same answer in all cases. *ARE WE SAFE might be extended to any circumstances where people are putting themselves and their colleagues at unnecessary risk*.

Fourth, *consider the wisdom of the “three-stuff-up” rule of thumb*. If you find yourself, or a colleague, making three silly mistakes when preparing for an activity, then it may be a strong hint that it should not be undertaken. A series of mistakes or near misses might suggest that flying is not advisable.

Fifth, when lapses and errors occur indicating concern with continued safe operations, it may be *time for a short Safety Pause*, debriefing with some open Safety Dialogue on how best to deal with those errors and risks. *Individuals’ flying and maintenance plans might have to change*.

DIFFICULT CONVERSATIONS

In some circumstances, it may be time for a difficult conversation! Sooner or later, we will all give up gliding solo, or gliding altogether. Sometimes, we may need to take a lesser precautionary step, to dual flying or reduced activity, or take an operational pause until recovery and improvement. Hopefully we can do this on a high, safely, and on good terms with others.

Appendix 1 is an extract from Gliding Australia Magazine, [Issue 28](#) in 2016, titled “Difficult Conversations”. Advice is provided on planning and conducting respectful conversations on difficulties affecting fitness to fly. Key points include:

- Focus on the desired outcomes – mutual safety, enjoyment, safe dual flying
- Risk issues are disclosed – concern for their well-being is important
- Build on common ground – preferred options, willingness of colleagues to help
- Mindfulness of collective obligations – each pilot to other pilots, friends, families
- Care with language and style, use of a collaborative tone
- Respect for sensitivities, trust, non-disclosure of confidential information
- Building respect through leadership, positive role models and culture.

WHERE TO FROM HERE?

Further dialogue and feedback on these issues will be welcomed. We cannot escape insidious gradual effects of ageing, so we must be mindful of the potential risks of ageing effects being amplified by mental and physical effects of Long Covid, or other underlying conditions.

As individuals, we should manage our health risk factors, monitor changes, actively seek professional medical advice on risks and potential limitations, regardless of the type of medical declaration we use. We should apply IMSAFE in both a daily and longer-term context.

We should adopt collective approaches to our safety, extend to WE ARE SAFE. An early “inner voice” or “friendly voice” from colleagues may avert problems, allow mutually beneficial options. We should not be hostile to concerns and advice from club colleagues, whose well-being is also affected by yours. Respectful conversations should explore opportunities for safe gliding activities.

We might extend the “safe to launch” rule beyond operations to airworthiness and pilot fitness to fly. We should more openly apply rules of thumb like “three stuff-ups” as preventive measures, in a culture that openly encourages safety conversations.

We should be open to discussing personal fitness to fly factors contributing to occurrences and near misses in confidential SOAR reports. Better data may assist in developing better preventive strategies and understanding the types of incidents with elevated risks.

Finally, sharing experiences about difficult conversations and precautionary strategies can help us all. One day, we will also say farewell...



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DIFFICULT CONVERSATIONS

We are all getting older. None of us are getting younger. Yet we still feel young at heart, gliding keeps us young and, for many of us, we put effort into maintaining our fitness to fly. We glider pilots are often self aware, wilful, focussed, achievement oriented and individualistic characters, with a disposition to explore what we can do, rather than what we cannot.

When we analyse accidents and incidents, or conduct an accident investigation, one of the key questions to be answered is pilot fitness to fly and medical status. In assessing the human factors, we also have to assess the possible contributions of fatigue, dehydration, heat stress, overload, distraction, nutrition or other factors eroding pilot wellbeing or ability to maintain situational awareness, airmanship and make safe flying decisions. We have often found that human factors contribute to serious accidents. Therefore, I invite you to look at the GFA accident and incident summaries online and in [Gliding Australia](#), and see for yourself.

Sometimes we are asked about managing the challenges of ageing pilots. Sometimes advice is sought about having difficult conversations with ageing pilots whose safety and airmanship might be falling below levels for safe cross-country or solo flight.

The responsibility for dealing with this comes down to two sets of decisions:

- the individual pilot making responsible decisions about themselves, mindful of their responsibilities to family, friends and other pilots; and
- the training and operations panel, or club operations manager, mindful of their collective responsibility to all pilots, and their families and friends.

Most pilots can self-declare fitness, and some have GP or Aeromedical certification of fitness. Regardless of this regime, it is incumbent upon every pilot to be aware of disqualifying conditions or temporary conditions requiring a pause in flying, or flight with a safety pilot.

I recall a close gliding friend who declared his intention to give up solo gliding when he reached a significant birthday. He enjoyed good health yet was aware of his ageing, and wanted to go out of gliding on a high, with positive achievements and an excellent safety record, not on a low. We had some great cross country flights just before the date of his voluntary exit from solo gliding. He had a big celebration, too. Now he occasionally enjoys a dual flight as a guest. To this date, I admire his clarity of thought and decision process.

Other gliding friends are still flying solo in good health, yet conscious of their limited timespan of solo flying, and are looking at dual seater glider options. Many pilots are finding dual XC flying a particularly satisfying experience and prospect for safe mutual flying. I have heard several pilots discussing the strategy of a graceful exit, mutual flying with a syndicate partner as a safety pilot, doubling the lookout and the enjoyment.

So, how might we have those difficult conversations? I offer these comments as a professional negotiation specialist as well as in my operations role.

- First, focus on the desired outcomes. Mutual safety, enjoyment in a safe environment, positive reputation, positive impacts on self and club members, families and friends if managed properly.

- Second, do not neglect disclosure of risks and discussing possible negatives, particularly if other club members and pilots have raised concerns about a pilot's health, declining skills and

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situational awareness. In fact, it is your concern for the pilot's well-being that makes this necessary.

- Third, build on common ground, based on graceful exit strategies, to draw the pilot to agree with your preferred options. Mutual flying with colleagues and safety pilots should be on the cards if a two-seater option is available. Emphasise the willingness of colleagues to assist and share flying. If cessation of flying is needed, then emphasise the support and social network still available from other members, through other activities.

- Fourth, be mindful of the collective responsibilities that each pilot has to other pilots, and to families, friends and colleagues. It is not just about the pilot but rather, the community of pilots and the pilot's nearest and dearest. This reminder is sometimes needed to re-frame the outcomes or objectives of this difficult negotiation with the pilot.

- Fifth, be careful about your choice of language and style. Pilot reactions may be strong and emotional. A supportive and collaborative tone is more likely to achieve the desired outcomes than an accusatory tone or ultimatum.

- Sixth, respect confidences and sensitivities. Trust is crucial to successful negotiation of good options. Trust is hard earned and easily lost. Discretion and tact, non-disclosure of confidential information, respect for the needs of the pilot are important.

- Finally, this requires good leadership and a positive club culture. These sorts of difficult conversations should be respectful and the people involved respected, not denigrated. Respect goes to our most fundamental human needs.

Note that this might be a continuing conversation over many encounters, not just a single, difficult encounter. Conversations with other people in the pilot's trusted network can help to influence their decision, to shape the environment in which the pilot has to make difficult decisions about their future in gliding.

I offer a final thought. We will all have to stop gliding one day. We might all reflect on how we would like to do this, on what terms. We need to be mindful of the thresholds that we might apply to ourselves to cease solo flying, fly dual only, or cease flying altogether. Good luck, stay safe and enjoy the best flying you can, while you can!